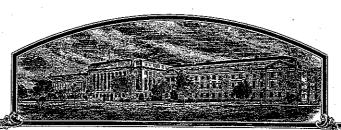
No.



200200003

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Ance Seed Lesting, Inc.

HICCORS, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE PASTS SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR CONDITIONING IT ROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR USING IT IN PRODUCING A HYBRID OR VI VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 S AMENDED, 7 U.S.C. 2321 ET SEQ.)

RYEGRASS, PERENNIAL

'Quick Trans'

In Testimon Mercest, I have hereunto set my hand and caused the seal of the Hant Enricty Grotection Office to be affixed at the City of Washington, D.C. this nineteenth day of November, in the year two thousand and four.

P. M. John

tion Office

Agriculturo

REPRODUCE LOCALLY. Include form number and date on all reproductions.

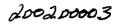
U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE SCIENCE AND TECHNOLOGY - PLANT VARIETY PROCTECTION OFFICE

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions and information collection	on burden statement on revers		0.0.0. 2421). IIIIOIII	ianon is field comidential at	in cermone i	3 1330EG (7 0.3.0 2420).
1. NAME OF OWNER				2. TEMPORARY DESIG		3. VARIETY NAME
Pure Seed Testing, Inc.				PST-3BK	ME	Quick Trans
4. ADDRESS (Street and No., or RFD No., City, State, and ZIP Code, and Country)				5. TELEPHONE (include	e area code)	FOR OFFICIAL USE ONLY
P.O. Box 449 Hubbard, OR 97032				(503) 651-2	130	PVPO NUMBER 2002 <i>000</i> 3
,				6. FAX (include area co	ode)	FILING DATE
				(503) 263-0	703	B + 10. 72 2
7. IF THE OWNER NAMED IS NOT A "PEI ORGANIZATION (corporation, partnersh	RSON", GIVE FORM OF		ORATED, GIVE	9. DATE OF INCORPO	RATION	October 3,2001
Corporation	,5, 46650141011, 616.)	Oregon		1975		
10. NAME AND ADDRESS OF OWNER RI	EPRESENTATIVE(S) TO SEF	RVE IN THIS API	PLICATION. (First p	.l. erson listed will receive all	papers)	FILING AND EXAMINATION
Crystal Rose-Fricker Pure Seed Testing, In	c.					F FEES: E \$ 2705
P.O. Box 449 Hubbard, OR 97032						R DATE 10/3/2001
•						C CERTIFICATION FEE:
						s 432
			•			D DATE 9/27/04
11. TELEPHONE (Include area code)	12. FAX (Include area code	e) 13.	E-MAIL			CROP KIND (Common Name)
(503) 651-2130	(503) 263-0703		crystal@turf			rennial Ryegrass
 CHECK APPROPRIATE BOX FOR EAC on reverse) 	CH ATTACHMENT SUBMITTI	=D (Follow instruct	CLASS			THIS VARIETY BE SOLD AS A (a) of the Plant Variety Protection
a. 🛛 Exhibit A. Origin an Breeding	History of the Variety		Act)			
b. 🗵 Exhibit B. Statement of Distinctness						NO (If "no," go to item 22)
c. 🛛 Exhibit C. Objective Description of Variety				THE OWNER SPECIFY TH Y BE LIMITED AS TO NUM		
d. 🛛 Exhibit D. Additional Description of the Variety (Optional) IF YES, WHICH CLASSES? I			WHICH CLASSES? ☑ FOUN	DATION 🛛 i	REGISTERED 🛭 CERTIFIED	
e. 🛛 Exhibit E. Statement of the Ba	asis of the Owner's Ownership			****		
f. \(\sqrt{Voucher Sample (2,500 viable u. verification that tissue culture will be repository)}\)	ntreated seeds or, for tuber propag e deposited and maintained in an a	gated varieties, pproved public	LIMITED	HE OWNER SPECIFY TH. OAS TO NUMBER OF GEN PECIFY THE 6 ☑ FOUL	NERATIONS?	
g. Filing and Examination fee (\$2	. 705), made payable to "Treasure	r of the United Stat	NUMBER	IF YES, SPECIFY THE 6 ☑ FOUNDATION 6 ☑ REGISTERED 7 ☑ CERTIFIED NUMBER 1, 2, 3, etc.		
(Mail to the Plant Variety Protection		, -, , , ,		nal explanation is necessary, pl	ease use the sp	ace indicated on the reverse.)
22. HAS THE VARIETY (INCLUDING ANY I PRODUCED FROM THIS VARIETY BEI USED IN THE U.S. OR OTHER COUNT	EN SOLD, DISPOSED OF, TF	A HYBRID RANSFERRED, (23. IS THE VOICE INTELLE	CTUAL PROPERTY RIGH		HE VARIETY PROTECTED BY REEDER'S RIGHT OR
☑ YES □ NO			☐ YES			⊠ NO
IF YES, YOU MUST PROVIDE THE DAT OR USE FOR EACH COUNTRY AND TH				GIVE COUNTRY, DATE Ο ENCE NUMBER. <i>(Please ι</i>		ISSUANCE AND ASSIGNED cated on reverse.)
on reverse.) 24. The owners declare that a viable sample of bar tuber propagated variety a tissue will be depos				ed upon request in accordance	with such regul	ations as may be applicable, or for a
The undersigned owner(s) is(are) the owner of entitled to protection under the provisions of Se	this sexually reproduced or tuber	propagated plant va		nat the variety is new, distinct, i	uniform, and sta	ble as required in Section 42, and is
Owner(s) is(are) informed that false representa SIGNATURE OF OWNER	ation herein can jeopardize protecti	on and result in pe		OF OWNER		
Censtal Rose In	4		CZ	All All		
	via		4	15 mill		
NAME (Please print or type)			NAME (Pleas	e print or type) -// K. Wipff, Ph.D.		
Crystal Rose-Fricker			Joseph	N. WIPIK PII.U.		
CAPACITY OR TITLE	DATE		CAPACITY O		DATE	
President	October 1, 2001		Taxonom	ist/Plant Breeder	Octobe	r 1. 2001



GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to reproduce the variety, or for tuber reproduced varieties verification that a viable (in the sense that it will reproduce an entire plant) tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for \$2,705 (\$320 filling fee and \$2,385 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice.) Partial applications will be held in the PVPO for not more that 90 days, then returned to the applicant as unfiled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 500, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. DO NOT use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of \$320 for issuance of the Certificate.

Plant Variety Protection Office Telephone: (301) 504-5518 FAX: (301) 504-5291

Homepage: http://www.ams.usda.gov/science/pvp.htm

ITEM

- 18a. Give:
- 1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
- (2) the details of subsequent stages of selection and multiplication;
- (3) evidence of uniformity and stability; and
- (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified.
- 18b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
 - (1) identify these varieties and state all differences objectively;
 - (2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences;
 - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 18c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 18e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
- 19. If "Yes" is specified (seed of this variety be sold by variety name only, as a class of certified seed), the applicant MAY NOT reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
- See Section 83 of the Act for the Contents and Term of Plant Variety Protection.
- 22. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
- See Section 5.5 of the Act for instructions on claiming the benefit of an earlier filing date.
- 21. CONTINUED FROM FRONT (Please provide a statement as to the limitation and sequence of generations that may be certified.)
- 22. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)
 10/3/00 sold 20# to United Horticultural Supply and 10/18/00 sold 500# to High Tech.
- 23. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the applicant/certificate. There is no charge for filing a change of address. The fee for filing a change of ownership or assignment or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of Regulations and Rules of Practice.)

To avoid conflict with other variety names in use, the applicant must check the variety names proposed by contacting: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center—East, Beltsville, MD 20705. Telephone: (301) 504-8089.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number for this collection of information is (0581-0055). The time required to complete this information collection is estimated to average 1.4 hours per reponse, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs). Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact the USDA's TARGET Center at 202-720-2600 (voice and TDD). To file a complaint, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, D.C. 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

Exhibit A.

Origin and Breeding History of PST-3BK

Quick Trans perennial ryegrass is an advanced generation synthetic selected from perennial ryegrass plants crossed with annual ryegrass plants. Plants were selected for perennial type growth habit and early maturity. Quick Trans traces its parentage to selections from Quickstart and Roadrunner (see attached flow chart).

In Spring 1997, five clones of perennial ryegrass selected for early maturity and dark green color (2KS population) and four clones of annual ryegrass found as a contaminant in a Kentucky 31 seed yield trial plot were placed into an isolated polycross designated 3AK. Seed was harvested from each parental clone and seeds from these nine clones were used to establish a 1,050 spaced-plant nursery in fall 1997.

In the spring 1998, 23 clones were selected out of the progeny from the perennial maternal clones of 3AK for perennial habit, disease resistance, dark green color and early maturity, and moved into an isolated polycross designated PST-3BK. All these clones trace back maternally to five clones of the 2KS population.

The five parental clones from the population 2KS trace their origins to the following maternal sources.

- 2KS-2, -5, and -22 were from the population 2KA which traces its origin to 'Roadrunner'.
- 2KS-7 was from population's 2KA, 2CQ, and 2CH that trace its origin to 'Quickstart'.
- 2KS-8 was from population's 2CX, 2CQ, and 2CH that traces its origin to 'Quickstart'.

In the fall of 1998, seed from the 23 clones were used to establish an isolated spaced-plant nursery of 3,450 plants near Hubbard, OR. In the spring 1999, plants were removed from this nursery, prior to anthesis, with a high susceptibility to disease and to increase uniformity of plant type and maturity. Eight hundred seventy-five plants were harvested during the summer of 1999 to produce the first breeder seed of Quick Trans (PST-3BK).

Seed production of Quick Trans is limited to three generations of increase from breeder seed, one each of foundation, registered and certified. Quick Trans is a stable and uniform variety. Breeder seed is maintained by Pure Seed Testing, Inc. No off-types or variants have been observed in the reproduction or multiplication from breeder seed to foundation seed. Quick Trans perennial ryegrass and the parents of Quick Trans have produced turf and seed fields of equal quality, acceptable uniformity and good stability.

BREEDER HISTORY FOR *QUICKTRANS* (PST-3BK) FLOW CHART

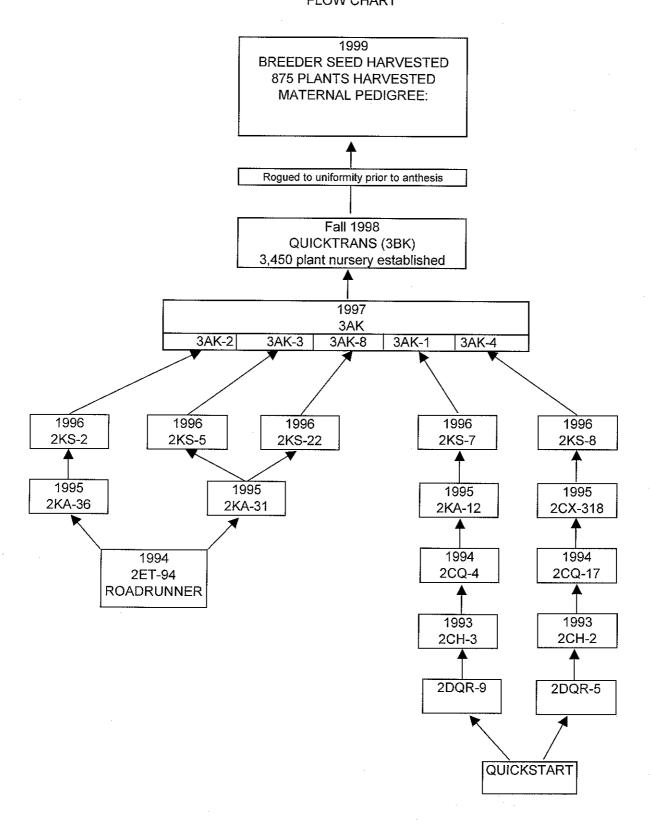


Exhibit B.

Novelty Statement for PST-3BK Perennial Ryegrass

Quick Trans (PST-3BK) is most similar to Manhattan II, however, close comparison shows the following differences.

- 1. Quick Trans has a heading date of at least 14 days earlier than Manhattan II (Tables 1 and 2).
- 2. Quick Trans has a plant height at least 5.4 cm shorter than Manhattan II (Tables 3 and 4).
- 3. Quick Trans has a spike length at least 3.3 cm shorter than Manhattan II (Tables 3 and 4).
- 4. Quick Trans has at least 3.1 spikelets fewer per spike than Manhattan II (Tables 3 and 4).
- 5. Quick Trans has at least 0.9 more spikelets per spike than Manhattan II (Tables 3 and 4).
- 6. Quick Trans has a tiller leaf length at least 2.4 cm shorter than Manhattan II (Tables 3 and 4).
- 7. Quick Trans has a tiller leaf width at least 0.2 mm narrower than Manhattan II (Tables 3 and 4).

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this collection of information is (0581-0055). The time required to complete this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact the USDA's TARGET Center at 202-720-2600 (voice and TDD). To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE SCIENCE AND TECHNOLOGY PROGRAM PLANT VARIETY PROTECTION OFFICE **BELTSVILLE, MD 20705**

EXHIBIT C (RYEGRASS)

OBJECTIVE DESCRIPTION OF VARIETY RYEGRASS

(Lollul	m spp.)	
NAME OF APPLICANT(S)	TEMPORARY DESIGNATION	VARIETY NAME
Pure Seed Testing, Inc.	PST-3BK	Quick Trans
ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code)		FOR OFFICIAL USE ONLY
P.O. Box 449		PVPO NUMBER
Hubbard, OR 97032		200200003
Place the appropriate number that describes the varietal characteristics of (e.g. 089). Descriptions of characters should represent those that are type be for SPACED PLANTS. Give additional description for all characteristic pertinent comparative trial and evaluation data. The symbol "L" indicates	ical for the variety. Ranges may be stics that cannot be adequately desc	given also. Measured data should
1. SPECIES:		
$ \begin{array}{c} 1 = L. \ multiflorum \ (annual or italian: 2 = L. \ pe \\ $	renne (perennial) $3 = L$. ri	gidum (includes Wimmeria)
4 = Hybrid (of species):	5 = Other (Please specify)	:
2. PLOIDY:		
1 Diploid $2 = \text{Tetraploid}$ $3 = \text{Other (Please)}$	specify):	
3. DURATION:		
1 = Annual or Biennial 2 = Short lived perennial (3	3 = Perennial (mo	ore than 4 years)
STANDA	RD CULTIVARS	
	3 = LINN 7 = MANHATTAN II	4 = PELO 8 = PENNFINE
4. MATURITY (50% HEADED) Use standards from above for	or comparison: (Table 1)	
1 = Very Early 3 = Early 5 = Medium 7 = Late D CULTIVAR	ARLIER THAN 3 STAND	ARD CULTIVAR
5. MATURE PLANT HEIGHT (Use standard cultivars from a	above): (Table 3)	
6 6 .2 cm High 0 5 .4 cm Shorte	er than	DARD CULTIVAR
cm Taller than STANDA	ARD CULTIVAR	

0.	compa	ENT WINTER DAMAGE (estimated as percent of the area appearing dead. Use standard cultivars from above for arison):
	0 0 0	Percent Damage of Application Cultivar
		Percent Damage of
7.	TURF	DENSITY (Use standard cultivars from above): 12.7 cm section (Table 4)
	4 7 3	Tillers per 100 square cm
		Less tillers per 100 square cm than STANDARD CULTIVAR
	0 3 5	More tillers per 100 square cm than 7 STANDARD CULTIVAR
8.	FLAG	LEAF (at full growth, use standard cultivars from above): (Table 3)
	1 3 4	cm Length (from ligule to tip) 0 3.7 mm Width (at widest point)
		cm Shorter than
	006	cm Longer than
	0 0 .4	mm Narrower than
		mm Wider than STANDARD CULTIVAR
9.	LEAV	ES:
	3	Vernation: 1 = Leaves rolled in young shoots 2 = Leaves semi-rolled (folded with rolled edges) 3 = Leaves folded in young shoots
	50	% Plants with anthocyanin in lower leaf sheath 4 Foliage Color: 1 = Yellow Green 4 = Dark Green 2 = Medium Green 3 = Blue Green
10.	SPIKE	: (Table 3)
	16.3	mm Spike length (tip to internode below lowest floret)
	3 .3	mm Shorter than
		mm Longer than
2	630	mg per ten spikes (trimmed to internode below lowest floret)
		mg lighter per ten spikes than STANDARD CULTIVAR
	5 3 0	mg heavier per ten spikes than 8 STANDARD CULTIVAR
	8	florets per spikelet
	PERCE)	NTAGE OF PLANTS WITH:
	Rachis:	6 % Smooth 9 % Rough
	Spike Co	olor: 98.7 % Green 1.25 % Purple
	Lemma:	0 0 0 % Awned

Mower Shredding Resistance

200200003

18.	GIVE AREA OF ADAPTATION AND INTENDED USE:		·		V
19.	GIVE AREA TEST RESULTS PRESENTED FROM:	-1704/4		. 100 1004-0	
20.	COMMENTS:				

Exhibit D.

Additional Description of PST-3BK Perennial Ryegrass

- 1. Quick Trans has excellent transition and turf quality and good color in overseeding trials over dormant bermudagrass (Table 5).
- 2. Quick Trans has good resistance to stem rust (Table 6).
- 3. Quick Trans has good resistance to red thread (Table 7).
- 4. Quick Trans has good resistance to leaf spot and crown rust (Table 8).

Table 1. 2000 mean initial heading dates for entries in a perennial ryegrass spaced-plant trial planted fall of 1999 near Hubbard, OR.

<u>Entry</u>	<u>Mean</u>
Entry Linn Quick Trans (3BK) Pennfine Shining Star 2CRR Manhattan II Saturn II x Palmer III LRF 98-4-38 Pinnacle 2RT 2CRR Bulk Catalina ABT-99-834 2A6E x Brightstar II 2CRC Brightstar II Manhattan 3 PST-2A6B Prizm x LRF ABT-94-709 ABT-99-724 2JH ABT-99-721 2NC-15 2RU 2R4 LRF-98-437 2CRL 2BR Manhattan IV PST-CATS ABT-99-960 Chaparral E- LRF-98-439 2LA Rusty C8-9-216 2SBE 2SBE C-Lot 2SBE 2SBE C-Lot 2SBE B-Lot 2LA 2L96 2SLW 2SLX 2L96 Rusty Manhattan Rhapsody Evita Elka	Mean 25 April 25 April 25 April 27 May 28 May 29 May 29 May 29 May 20 May 21 May 21 May 21 May 21 May 22 May 23 May 24 May 25 April 26 May 27 May 28 May 29 May 20 May 21 May 21 May 22 May 23 May 24 May 25 May 26 May 27 May 28 May 29 May 29 May 20 May 20 May 21 May 22 May 23 May 24 May 25 May 26 May 27 May 28 May 29 May 29 May 20 May 20 May 21 May 22 May 23 May 24 May 26 May 27 May 28 May 29 May 29 May 20 May 20 May 21 May 22 May 23 May 24 May 26 May 27 May 28 May 29 May 29 May 20 May 20 May 20 May 21 May 22 May 23 May 24 May 26 May 27 May 28 May 29 May 29 May 20 May 20 May 20 May 20 May 21 May 22 May 23 May 24 May 26 May 27 May 28 May 29 May 20 May 20 May 20 May 20 May 20 May 20 May 21 May 22 May 23 May 24 May 26 May 27 May 28 May 29 May 20
LSD (0.05)	3 days

Il

Table 2. 2001 mean initial heading dates for entries in a perennial ryegrass seed yield trial seeded fall of 2000 near Hubbard, OR.

Entry	Mean
Elka	25 May
2UF	22 May
2VL-00	20 May
Manhattan II	20 May
2SBE	13 May
2L96	13 May
2LA	13 May
Manhattan 4	12 May
2BR	12 May
Navajo	12 May
2JH [°]	12 May
Brightstar	12 May
Brightstar SLT	11 May
Manhattan III	11 May
2M4	11 May
Omega III	11 May
Prizm+LRF	11 May
Windstar	11 May
Chaparral	10 May
Saturn II	10 May
Catalina	10 May
Windstar BS	10 May
Pinnacle	10 May
Brightstar II	10 May
Sonata BS	09 May
Palmer III	09 May
Yorktown II	09 May
Citation III	09 May
Repell II	08 May
2CRR	08 May
Checkmate	07 May
PG-939	06 May
Arena	06 May
Roadrunner	05 May
Sunrye	04 May
Stardance	03 May
Charger	03 May
Charger II	03 May
Endurance	01 May
Linn	30 April
Quick Trans	25 April
LSD (0.05)	3 days

Table 3. 2001 mean morphological measurements for entries in a perennial ryegrass spaced-plant trial planted fall of 1999 near Hubbard, OR.

Tillers/ 12.7 cm Row (#)	711.3	155.1
Flag Leaf Width (mm)	4.1	0.3
Flag Leaf Length (cm)	12.8 13.4	1.1
Tiller Leaf Width (mm)	8. 6. 8. 6.	0.3
Tiller Leaf Length (cm)	17.6 15.2	7.
Awn Length (mm)	0.2	0.2
Florets per Spikelet (#)	6.5 8.0	0.5
Spikelets per Spike (#)	25.4 21.7	2.2
Length of Outer Glume (mm)	7.2 7.0	4.0
Length of Spikelet (mm)	11.1	9.0
Spike Length (mm)	19.6 16.3	1.2
Flag Leaf Sheath Length (cm)	11.0 10.3	0.8
Flag Leaf Height (cm)	40.4	1.9
Plant Height (cm)	71.6 66.2	2.4
Entry	Manhattan II Quick Trans	LSD (0.05)

Table 4. 2000 mean morphological measurements for entries in a perennial ryegrass spaced-plant trial planted fall of 1999 near Hubbard, OR.

Tiller Count (#/12.7 cm Row)	437.8 472.7	73.9
Tiller Leaf Width	2.6 2.4	0.2
Tiller Leaf Length (cm)	15.6	1.0
Florets/ Spikelet (#)	6.9 7.8	9.0
Spikelets/ Spike (#)	20.6	4.1
Spike Length (cm)	21.1	1.9
Plant Height (cm)	69.7 56.1	4.0
Entry	Manhattan II Quick Trans (3BK)	LSD (0.05)

Table 5. Mean turf quality, color, and percentage cool-season grass ratings for entries in a winter overseeding turf trial seeded fall of 1999 at West Coast Turf Sod Farm near Scottsdale, AZ. (9=ideal quality; dark green color)

Entry	Turf Quality (through 10 May, 2000)	Color (10 May, 2000)	% Cool-Season Grass (10 May, 2000)
PST-2BR	7.2	7.7	63.3
PST-2CRL	7.0	7.3	63.3
PST-2R4	5.4	4 .7	53.3
PST-2A6B	6.5	6.0	50.0
PST-2CRR	5.9	5.3	48.3
Winterplay Poa trivialis	4.1	2.7	48.3
Winterstar Poa trivialis	4.4	3.3	46.7
21N Bulk	6.3	7.0	45.0
PST-22L	5.6	6.7	45.0
Chaparral	6.9	5.3	45.0
Brightstar II	5.7	5.0	43.3
PST-2LA	5.3	5.3	43.3
PST-2SBE	5.7	6.0	41.7
PST-2M4	5.1	4.7	40.0
Citation III	6.1	4.7 6.0	40.0
30% Winterstar, 70% Charger II	4.6	3.3	38.3
30% Winterplay, 70% Brightstar II	4.6	3.3 3.3	
PST-2L96	5.6		38.3
DOT COM		5.7	36.7
Charger II	5.9 5.0	5.3	36.7
PST-2JH	5.0	4.7	36.7
PST-CATS	5.2	4.3	36.7
Quickstart	6.1	6.0	36.7
2QTL Bulk	4.7	4.0	35.0
	5.2	4.7	35.0
Catalina	5.7	4.7	35.0
22E Bulk	5.8	4.0	35.0
30% Winterstar, 70% Brightstar II	4.6	4.7	35.0
Alliance	4.6	4.7	33.3
PST-2SLX	6.1	5.3	33.3
PST-2RT	4.8	4.0	33.3
2QTE Bulk	4.8	4.7	30.0
Manhattan 3	4.8	4.3	28.3
Sunrye	4.7	2.7	28.3
Charger	4.4	3.7	26.7
10% Shade Star, 90% Brightstar II	4.5	4.0	26.7
5% Shade Star, 95% Brightstar II	5.7	6.0	26.7
2QTM Bulk	5.2	4.3	23.3
PST-3BKM	6.1	4.7	21.7
Quick Trans	6.0	3.7	21.7
CDM-99 crested dogtail	3.9	2.3	20.0
2AP Bulk intermediate ryegrass	4.0	3.3	18.3
30G intermediate ryegrass	2.8	2.0	16.7
LSD (0.05)	0.8	1.6	17.6

-	1999 Perennial Ryegrass Single Row Commercial NTEP Seed Yield Trial	1999 Perennial Ryegrass Turf Trial	
Entry	2000 Stem Rust 9=No Rust AVG.	2000 Mean Turi Quality	
PST -2CRL	8.0	6.5	
PST- 216	8.0	5.1	
PST- 2CRR	8.0	5.4	
QUICK TRANS	8.0	4.7	
PST -2SBE	7.8	5.6	
PST-2LA	7.8	5.7	
PST -CATS	7.5	5.2	
PST -2M4	7.3	5.7 5.7	
PST- 2SLX	7.0	5.7 6.8	
CITATION FORE BRIGHTSTAR SLT	6.8	6.1	
ABT 99-4-633	6.5	6.0	
MANHATTAN 3	6.5	4.6	
CATALINA	6.3	5.6	
ABT 94-4-709	6.3	5.0	
CHARGER II	6.3	5.1	
WILMINGTON	6.0	5.5	
BARLENNIUM PRG	6.0	5.7	
MP 103	5.8	5.3	
LINE DRIVE PIR	5.8	4.9	
ABT 99-4-461	5.5	5.6	
ASCEND	5.5	4.6	
PASSPORT	5.5	5.0	
PICK PR 194	5.3	5.2	
PACE PRG	5.0	5.2	
ABT 99-4-629	5.0	5.1 5.8	
PROMISE	4.8	3.6	
BUCCANEER PREMIER	4.8	4.3	
ABT 99-4-834	4.5	5.5	
CIS PR 75	4.3	5.1	
057 MT. VIEW PRATUM	4.3	5.2	
DIVINE	4.3	4.7	
ALLSPORT	4.3	4.7	
FIESTA 3	4.0 ·	5.0	
CIS PR 78	3.8	6.3	
PIROUETTE	3.8	5.0	
CIS PR 80	3.8	5.1	
SRX 4RHT	3.5	5.9	
SRX 4820	3.5	5.9	
PALMER III	3.3	5.5	
PEARL SL	3.3	5.3 4.4	
HEADSTART ABT 99-4-721	3.0	5.5	
ABT 99-4-721 LINN	2.8	2.0	
YATSU GREEN	2.8	3.3	
PIZZAZZ	2.5	6.0	
CALYPSO II	2.5	5.4	
SRX 4500	2.3	5.4	
AFFINITY	2.0	3.9	
EDGE	2.0	4.1	
LSD (0.05)	2.4	0.8	

Entry	22 Jan	1 Feb	Mean
PST-2CRL	6.7	7.3	7.0
ABT-724	6.7	7.3	7.0
CIS-PR69	6.7	7.0	6.8
PST-3BKM	6.3	7.3	6.8
PST-2BR	6.7	6.7	6.7
CIS-PR78	6.3	7.0	6.7
Barlenium	6.0	6.7	6.3
2A6E x Brightstar II	6.0	6.7	6.3
Alliance	6.0	6.7	6.3
2PC Bulk	5.7	7.0	6.3
Brightstar II x 2A6E	5.7	7.0	6.3
PST-2M4	5.7	7.0	6.3
ABT-834	5.7	7.0	6.3
2QTL Bulk	5.7	6.7	6.2
SRX-4520	5.7	6.7	6.2
Pace	6.0	6.3	6.2
Calypso II	6.0	6.3	6.2
Edge	5.7	6.7	6.2
Quick Trans	5.7	6.3	6.0
PST-2A6B	5.7	6.3	6.0
PST-CATS	5.3	6.3	5.8
Yatsu Green	5.3	6.3	5.8
PST-2JH PST-22L	5.3	6.3	5.8
ABT-960	5.0	6.7	5.8
Prizm-99 x LRF	5.7 5.7	6.0	5.8
PST-2SLX	5.7 5.3	6.0 6.3	5.8 5.8
Brighstar II	5.3	6.0	5.6 5.7
Promise	5.3 5.3	6.0	5.7 5.7
Premier II	4.7	6.7	5.7 5.7
ABT-753	5.3	6.0	5.7 5.7
ABT-903	5.0	6.3	5.7
PST-2SBE	4.7	6.7	5.7
ABT-721	5.3	6.0	5.7
Palmer III x Saturn II	5.3	6.0	5.7
PST-2RT	5.3	6.0	5.7
LRF x Prizm	5.7	5.7	5.7
Rhapsody	5.3	6.0	5.7
PST-2WN	5.0	6.0	5.5
Shining Star	5.3	5.7	5.5
Omega II	5.0	6.0	5.5
PST-22M	5.3	5.7	5.5
2CUL Bulk	5.0	6.0	5.5
Pick 1-94	5.0	6.0	5.5
SRX-4801	5.0	6.0	5.5
Pizzazz	5.3	5.7	5.5
PST-2CT	5.0	6.0	5.5
PST-22E	5.0	5.7	5.3
Quickstart	5.3	5.3	5.3
PST-2LA	5.0	5.7	5.3
SRX-4500	5.3	5.3	5.3
057 Mt.View	5.0	5.7	5.3
Pirouette	4.7	6.0	5.3
Palmer III	5.3	5.3	5.3
Paragon	4.7	6.0	5.3
3PT Bulk	4.3	6.3	5.3
CIS-PR84	4.7	6.0	5.3
SRX-4120	4.7	6.0	5.3
B-2	5.0	5.7	5.3
PST-2L96	5.3	5.3	5.3

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Entry	22 Jan	1 Feb	Mean
Charger II	5.0	5.7	5.3
SRX-4RHT	5.0	5.7	5.3
Pearl	4.3	6.0	5.2
CIS-PR85	5.0	5.3	5.2
ABT-633	4.0	6.3	5.2
2SLW	4.7	5.7	5.2
Headstart	5.0	5.3	5.2
PST-2CRR	4.3	6.0	5.2
PST-2R7	4.7	5.7	5.2
PST-2HCR	5.0	5.3	5.2
CIS-PR75	5.0	5.3	5.2
ABT-629	4.3	6.0	5.2
Racer	4.7	5.7	5.2
R8000	5.0	5.3	5.2
Buccaneer	5.0	5.3	5.2
2TN-98 Bulk	4.3	6.0	5.2
Manhattan III	4.7	5.7	5.2
CIS-PR80	4.7	5.3	5.0
Catalina	4.7	5.3	5.0
Brightstar	4.0	6.0	5.0
Sunrye	5.0	5.0	5.0
ABT-709	4.7	5.3	5.0
PST-2R4	4.0	6.0	5.0
PST-21N	4.7	5.3	5.0
Linn DOT 2460	4.0	6.0	5.0
PST-216C	4.7	5.0	4.8
PST-2GT	4.0	5.7	4.8
Allsport	4.7	5.0	4.8
ABT-461 PST-216R	4.0 4.7	5.7	4.8
Wilmington	4.7 4.3	5.0	4.8 4.7
Premier	4.3 4.3	5.0 5.0	4. <i>1</i> 4.7
Charger	4.3 4.3	5.0 5.0	4. <i>1</i> 4.7
Divine	4.3	5.0 5.0	4.7
Prizm x LRF	4.7	4.7	4.7
Chaparral	4.3	5.0	4.7
Citation III	3.7	5.3	4.5
Passport	4.3	4.7	4.5
Navajo	4.0	5.0	4.5
Chaparral E-	4.3	4.7	4.5
Linedrive	4.0	5.0	4.5
30G	2.3	6.3	4.3
AG-P981	4.3	4.3	4.3
Saturn II x Palmer III	4.0	4.7	4.3
Majesty	3.3	5.0	4.2
Ascend	3.7	4.7	4.2
Affinity	4.0	4.3	4.2
MP 107	4.3	4.0	4.2
PST-2R4B	3.7	4.7	4.2
2QV Bulk	4.0	4.3	4.2
Evita	4.0	4.0	4.0
2MCB Bulk	4.0	4.0	4.0
Saturn II	3.7	4.3	4.0
Fiesta 3	3.3	3.7	3.5
MP 103	3.0	4.0	3.5
LSD (0.05)	1.6	2.0	1.7

Table 8. 1999 mean leaf spot, crown rust, and turf quality ratings for entries in a perennial ryegrass turf trial seeded fall of 1998 near Hubbard, OR. (9 = no disease; ideal quality)

Entry	Leaf <u>Spot</u>	Crown <u>Rust</u>	Turf <u>Quality</u>
2UF Bulk	5.3	6.7	6.6
2VL Bulk	6.0	8.0	6.6
2A6E Bulk	5.3	8.0	6.5
2L96 Bulk	5.3	6.0	6.4
Syn 2CRL	6.0	6.7	6.4
Syn 2BR	6.7	7.0	6.3
2M4 Bulk	5.7	6.0	6.0
Brightstar II	4.3	5.7	6.0
2LTC Bulk	4.3	6.7	6.0
2CLS Bulk	4.3	6.3	5.9
2SLX-98 Bulk	5.0	6.3	5.9
Catalina	4.3	7.0	5.9
Syn 2CL-98	4.7	7.3	5.8
Repell III	5.0	5.7	5.8
PST-2LA Premier II	5.0 5.3	6.7	5.8 5.7
Syn 2SBL	5.3 5.0	5.3 4.7	5.7 5.7
Calypso II	5.7	5.0	5.7 5.6
Charger II	4.3	7.3	5.6
Syn 2BM	5.3	5.3	5.6
Prelude III	4.3	5.0	5.4
Quick Trans (Syn 3BK)	6.0	7.7	5.4
Panther	4.3	5.7	5.4
Chaparral	4.0	4.7	5.4
Palmer III	4.0	4.7	5.4
Syn 2SBE	4.7	5.7	5.4
Imagine	4.0	5.7	5.3
Manhattan 3	4.0	5.3	5.2
Syn 2MCR	5.0	5.7	5.2
PST-210 Early	4.3	6.0	5.2
PST-2KSB	4.3	7.3	5.2
Sonata Brightstar	3.7 3.7	7.0 3.3	5.2 5.1
Syn 2CRY	5. <i>7</i> 5.0	5.3 6.3	5.1 5.1
Omega 3	4.0	6.7	5.1
Citation III	3.7	5.0	5.1
PST-2KS	5.3	6.0	5.1
Elf	4.7	5.7	5.1
Saturn II	4.0	4.7	5.0
PST-210 Medium	4.3	4.7	5.0
PST-2AH Endo	4.3	6.7	5.0
Caddieshack	4.3	3.0	5.0
2R4-98 Bulk	2. 7	6.7	5.0
Passport	4.3	4.7	5.0
Syn 2SSD	5.0	5.7	5.0

Table 8. 1999 mean leaf spot, crown rust, and turf quality ratings for entries in a perennial ryegrass turf trial seeded fall of 1998 near Hubbard, OR. (9 = no disease; ideal quality) [Cont'd]

Entry	Leaf <u>Spot</u>	Crown	Turf
<u>Entry</u>		<u>Rust</u>	<u>Quality</u>
Shining Star Roadrunner Syn 2TN-98 Blackhawk Quickstart Penguin Syn 28E PST-2R4-98 SR 4400 Cutter Prizm Charger	5.7 4.7 5.0 4.7 4.7 4.7 5.7 3.3 5.3 5.3 5.3	4.7 5.0 6.0 4.7 4.0 3.7 5.3 7.0 4.0 5.0 2.7 5.7	4.9 4.9 4.9 4.9 4.8 4.8 4.8 4.8 4.8 4.8
Gettysburg SR 4100	4.3	4.0	4.7
Patriot	6.3 5.7	3.3 5.0	4.7 4.6
Elka	5.0	6.0	4.6
Mardi Gras	4.3	4.7	4.6
PST-2CB	5.3	4.7	4.6
Yorktown III	4.3	4.0	4.6
Morning Star	4.0	3.7	4.6
Allaire II	4.7	4.3	4.6
Tophat	4.3	3.7	4.6
Nighthawk	5.3	4.7	4.6
Omni Seville	5.0 5.0	3.3 4.7	4.6 4.6
Edge	4.7	3.7	4.5 4.5
Divine	4.0	4.3	4.5
Aquarius II	4.7	5.0	4.5
PST-2LSW	5.0	3.7	4.5
Secretariat	5.0	3.7	4.5
Rodeo II	5.0	4.0	4.4
SR 4000	4.0	4.0	4.4
246	4.0	2.3	4.2
Express	4.3	3.3	4.2
Dasher II	4.7	3.3	4.1
LP 25487	3.7	6.0	3.8
Pennfine	4.3	2.7	3.8
Stallion Select	4.0	4.7	3.4
Pennant	4.3	2.3	3.1
PST-3CNR Intermediate Ryegrass	4.7	6.0	2.2
LSD (0.05)	1.5	1.6	0.6

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STATEMENT OF THE BASIS OF OWNERSHIP	protection certificate is to be issued (7 held confidential until certificate is issi			
1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION	3. VARIETY NAME		
The state of the s	OR EXPERIMENTAL NUMBER	J. VARIETT NAME		
Pure Seed Testing, Inc.	OR DAIL EXCEPTION TO THE TOTAL EXCEPTION OF THE PROPERTY OF TH			
and been resumb, the	PST-3BK	Quick Trans		
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4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)	5. TELEPHONE (include area code)	6. FAX (include area code)		
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Hubband OD 07022	7. PVPO NUMBER	(303) 203-0703		
Hubbard, OR 97032	7. PVPO NUMBER 2002001	m-3		
8. Does the applicant own all rights to the variety? Mark an "X" in appropriate block. If no		⊓NO		
6. Does the appropriate otick. If no	, please explain.			
9. Is the applicant (individual or company) a U.S. national or U.S. based company?				
If no, give name of country	⊠ YES	Пио		
	Z 125			
	<u> </u>			
10. Is the applicant the original breeder? If no, please answer the following:	⊠ YES □	NO		
a. If original rights to variety were owned by individual(s):				
Is (are) the original breeder(s) a U.S. national(s)? If no, give name of country				
	•			
	5			
b. If original rights to variety were owned by a company:	⊠ YES □	NO		
Is the original breeder(s) U.S. based company? If no, give name of country				
11. Additional explanation on ownership (If needed, use reverse for extra space):				
		,		
PLEASE NOTE:				
Plant variety protection can be afforded only to owners (now licensees) who meet one of the fe	ollowing criteria:			
1. If the rights to the variety are aymed by the animinal based on that a second of the second of th	dianal actional actions			
 If the rights to the variety are owned by the original breeder, that person must be a U.S. na which affords similar protection to nationals of the U.S. for the same genus and species. 	nional, national of a UPOV member coun	try, or national of a country		
which arrords shinted protection to nationals of the o.s. for the same genus and species.				
		•		

- 2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
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